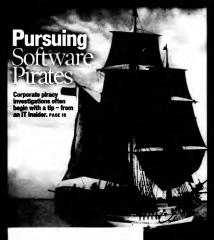
COMPUTERWORLD



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WiMax, smart grids and social networks will transform today's cities. PAGE 28

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COMPUTERWORLD III SEPTEMBER 14, 2009

NEWS



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lax, smart grids and social networks will make tomorrow's urb

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ONLINE CHATTER

RESPONSES TO: Microsoft Warns of **Chaos if Word Sales** Are Halted

Aug. 24, 2009

If a company is too big to let fail, then it's too big and it needs to feel the wrath of Sherman antitrust law. If a pany can cause massive disruption, entirely appropriate for the govern-

simple patent lawsuit against a comthat company is just too dang big. It's ment to intervene and restore sufficient competition so that a failure in one company or (worse) one product doesn't cause massive disruption. ■ Submitted by: riceof

My open-source inclinations usually lead me to criticize Microsoft with relish. On this issue, however, I don't seree with the court's decision. Custom XML document utilities are not exactly unique, and it doesn't look like Microsoft actually used i4i's code; it just had a very similar idea. The idea is a good one, and one that any word processing utility should have.

Submitted by: Tyrsten

RESPONSES TO: The iPhone That Ate My Travel Checklist

Aug. 29 2000 This is all wishful thinking on Mike Elgan's part. I took a six-week road trip and had high hopes for using my iPhone and Google Maps, But unless you are staying in major metropolitan areas, you can forget it. AT&T service leaves much to be desired and an iPhone has a hard time even being a phone in much of the Western U.S. The GPS is nifty.

but without the map to tell you where the blue dot is, useless, Submitted by: Anonymous

Mike Elgan shouldn't get carried away. I slimmed down on what I carried on my last trip. But I forgot the car charger, and the phone went dead in the midst of urban sprawl in the middle of the night, with no chain store in sight. Submitted by: Chief-Plasma

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The Unspoken Truth About Managing Geeks 079800t: The stereotypes that law **BROOK: The stereotypes that lamp IT pro-solonals together are misguided. It's actu-y the conditions that surround the IT pros it are stereotypical, and the geeks are just acting to those conditions the way they



AT&T itself started of far as to biame its IP service. So, Mille Ele



Dual Monitors, Multiple Vic REVIEW: The innovative interview dispi has a clover stand that lets you arrange

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THE WEEK AHEAD

MONDAY: The Social Media for Go sored by the Advanced Learnin

EDNESDAY: Oracle and Palm are b



Google Move May Mark New Front in Browser War

ONY CORP.'S recent agreement to preinstall Google Inc.'s Chrome on its Vaio line of PCs could mark the start of a renewed push by the search leader to boost its browser business.

The move comes about a year after Google debuted the Chrome browser to great fanfare but then failed to meet the initial expectations of analysts.

"From the outside, the thought last year was that Google would push Chrome a lot more than it has," said Gartner Inc. analyst Ray

Valdes, who had expected Chrome to have more than its current 2 9% share of the browser market a year after its launch last September.

"But with this deal. Google is signaling to the market and to competitors that it's taking a more traditional approach to marketing Chrome," he added. "Call it the Microsoftian ap-

proach to the market." A Google spokesman said the company is exploring how to get Chrome on even

more PCs. Sheri McLeish, an analyst at Forrester Research Inc.,

said the move represents a change in strategy for Google, because such deals are "a really fast-track way to grow market share."

McLeish called the Sony agreement a milestone because Google was able to convince the PC maker that its browser is a legitimate contender against Microsoft's Internet Explorer. Apple's Safari and Mozilla's Firefox

"To get the deal done, I'm sure Chrome had to go through some rigorous technical testing to make sure it was a viable browser," McLeish said. "It could pose tremendous risk to Sony if, for example,

Chrome wasn't secure enough for consumers." Valdes and McLeish both said that Google faces an

uphill battle against Microsoft in the browser business even with the Sony deal. One barrier is IE's market share. which Web metrics firm Net Applications puts at 66.6%.

"In terms of real market adoption. [the Sony deal isn't] going to have a tremendous impact," Valdes said. "You can't make a frontal assault (on IE), not these days."

Any potential IE rival faces serious hurdles in the enterprise market, the analysts noted, since businesses are loath to switch their workers to a different browser.

- Greez Keizer

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SECURITY

Windows Bug Enables PC Hijacking, Microsoft Warns

ICROSOFT CORP. last week confirmed that a bug in Windows Vista, Windows Server 2008, and the release can didates of Windows 7 and Windows Server 2008 R2 could be used to hijack PCs.

The vulnerability in the Server Message Block (SMB) 2 network file- and print-sharing protocol that ships with those versions of the Windows operating system was first disclosed late last Monday, when a researcher posted exploit code.

The next day, Microsoft issued a security advisory confirming the bug and the fact that it could be used to "take complete control of an affected system."

Microsoft did note that the release to manufacturing, or RTM. editions of Windows 7 and Windows Server 2008 R2 are not affected, along with earlier versions of the operating system, including Windows 2000, XP and Server 2003.

However, the vulnerable release candidates have been widely distributed, with millions of users downloading Windows 7 RC when it was publicly available from early May through mid-August.

Microsoft recommended that users either disable SMB 2 by editing the Windows Registry - a task too daunting for most consumers - or block TCP Ports 139 and 445 at the firewall until a patch is available. However, the company acknowledged that blocking those ports would cripple several services and applications.

The Windows bug was disclosed the same day



Microsoft delivered five critical updates that patched eight vulnerabilities in Windows, including one in the JavaScript engine that ships with every supported version of the operating system.

As expected, a patch for the recently revealed vulnerability in its Internet Information Services Web server wasn't ready in time for the monthly undate.

years, 11 months days, 23 hours 53 minutes as

495,000-square-foot R&O and support services facil-ity in Bangalore, India, and nnounced plans to invest another \$1.5 billion in India

CEO Steve Jobs returned from a six-month medical leave to demonstrate updated Phone and

cisco. Jobs received a liver transplant in April

Osborne Computer declared bankducing what was regarded puter - the 24-lb. Osborne I. which cost \$1.795.

Global ispatches

- Green Keizer

Fund Formed for Chinese Start-ups BELJING - Kai-Fu Lee, who

ed as president of or this month, has four noel investment fund and s to help out three to five

m (U.S.) prov eral IT vendors, in Inc. and Lone eve Chen, a co be inc., is al

The new company said the eds will be used to train

rnet and cloud o

IDG News Service

Telecom Firms Plan Joint Venture LONDON - Deutsche Teleko A6 and France Telecom SA nian to form a joint venture that would oversee their rective U.K. mobile con

ons networks - T-Mob U.K. and Orange U.K. The combined com would have about 26.4 ml ers, or 37% of U.K. m

ribers, lea urrent market lead Ltd., which reported 20.7 mil omers at the end of ne, the companies said.

The venture is expec realize overall savings of more than £3.5 billion (\$5.7 billion stores and

IDG News Service

RIEFLY HOTED The European U fermed that its on wed a con ntel Corp. in July alle "procedural errors" v by the European Co ing an antitrust in at led to a record f £1,06 billion (\$1,44 billion U.S.) t the chip maker. Om an P. Mildioros Diam ns said he will rule on the



TDG News



SECURITY

Microsoft Betrayed i4i, Say Court Documents

ICROSOFT CORP. marketed i4i tion in August, barring Inc's XML soft-Microsoft from selling ware to potential custom-Word 2003 and Word 2007 after Oct. 10. The ers at the same time it planned to drive the small decision came about three months after a company out of business by infringing on its pat-Texas jury found that ent for the technology. Microsoft had illegally according to court docuused patented i4i techments filed last week. nology to build XML In a brief submitted features into its word to the U.S. Court of Approcessing software. peals for the Federal The jury had awarded District in Washington, i4i \$200 million, but

Toronto-based i4i ar-Davis increased the gued that an injunction amount to just under blocking Microsoft from \$300 million when he isselling current versions sued the injunction. of Word should stand. Farlier this month, the

three-judge appeals panel Federal Judge Leonard

Short for the foundation.

nies. Microsoft contrib

Davis issued the injunc-

patches for 10 vulner and JavaScript rendering

Microsystems Inc 's Unix

decided to stay the injunction while it weighs Microsoft's appeal.

14i filed the patent infringement lawsuit in 2007. The new i4i brief charges that in 1991, "at the same time Microsoft was praising the improved functionality that i4i's product brought to Word, and touting i4i as a 'Microsoft Partner,' Microsoft was working behind i4i's back to make i4i's product obsolete."

According to the brief, just days after a 1991 meeting in which Microsoft had sought to find ways to work with i4i. Microsoft executives discussed XML plans for Word that would eventually "make obsolete any competitive attempts by third parties

to conquer that market." Microsoft must file its rebuttal to i4i's brief by Sept. 14; the appeals court is slated to hear oral arguments from the two sides on Sept. 23.

Asked to comment on i4i's briefs, a Microsoft spokesman said, "We're looking forward to the hearing on the merits of our appeal."

- Green Keizer

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Windows Bug Enables PC Hijacking, Microsoft Warns

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An attacker who ... exploited this vulnerability could take complete control of an affected system.

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As a period, sparch to the recently revealer a accidency mars linearie. Information Services Wessers of Washill study of the for the monthly update.



- Kar-Fu Lee, who resigned as president of Google Inc.'s China operation earlier this month, has founded an angel investment fund and plans to help out three to five new Chinese high-tech compa-

nies annually.
The fund, dubbed Innovation
Works, launched with some
S115 million (U.S.) provided by
several IT vendors, including
Taipei-based Foxconn Electronics Inc. and Lenove Group

Ltd. Steve Chen, a co-founder of YouTube Inc., is also an investor in Innovation Works. The new company said the funds will be used to train young entrepreneurs and hele

BENCHMARKS LAST WEEK

EMC Corp. opened a 495,000-square-foot R&D and support services facility in Bangalore, India, and announced plans to invest another \$1.5 billion in India over the next five years.

over the next five years.

Apple Inc. CEO Steve Jobs returned from a six-month medical leave to domon-strate updated iPhone and

and reporters in San Francisco. Jobs received a liver transplant in April. 26 YEARS AGO: Osborne Computer declared bankruptcy, two years after producing what was regarded as the first portable computer - the 24-lb, Osborne I

iPod software for analysts

which cost \$1,795.

them build Internet, mobile Internet and cloud computing companies.

Telecom Firms Plan Joint Venture

Plan Joint Venture

- Deutsche Telekom
AG and France Telecom SA
plan to form a joint venture
that would oversee their respective U.K. mobile commumocations networks - T-Mobile
U.K. and Drance U.K.

The combined company would have about 28.4 million customers, or 37% of U.K. mobile subscribers, leapfrogging current market leader D2 U.K. Ltd., which reported 2D.7 million customers at the end of

June, the companies said.

The venture is expected to realize overall savings of more than £3.5 billion (\$5.7 billion U.S.) by, among other things,

closing some stores and "optimizing" the companies customer service staffs.

HM, News Services

The European Union has confirmed that its ombudsman received a complaint from Intel Cerp in July alleging that "procedural errors" were made by the European Commission during an antitrust investigation that led to a record fine of C106 billion (3.4 4 billion U.S.) against the chip maker. Ombudsman P. Nikiforos Diamandouros said he will rule on the complaint later this month.

mt Sees



Microsoft Betrayed i4i, Say Court Documents

The State of



of Works married annual

Microsoft Corp. has rce group dubbed the by open-source and pronies. Microsoft contrib-

POST OF BUILDING CO.

Mozilla Corp. issued patches for 10 vulnerabilities in Firefox 3.5, mostly to fix stability ms in the brows

were labeled "critical." # Oracle Corp. ended its ence on its plans for Sun Microsystems Inc.'s Unixbased hardware. In ads. Oracle promises to spend

ing service and support.

III IBM has named Pat Toole CIO of an IT operation whose centralization was advanced under Mark essy, who now heads strategy and transformadistribution operation



Intelligent.



MEWS ANALYSIS

Finding the Stars With Bright Ideas

Companies are using collaboration tools to tap the brains of experts in cubicles all over the world. By Matt Hamblen

inding the right employees to meet key challenges has long been a conundrum for corporate executives and project managers. In a big corporation, the

expertise needed to fix a stumbling marketing program or jump-start a product development project could be hidden anywhere within a workforce whose ranks could

number more than 100,000. Some multinational companies, like The Procter & Gamble Co. and Cisco Systems Inc., are giving managers a variety of options — from high-definition videoconferencing to instant messaging and wikis — to help them find people with the skills they need, where

ever those people may be. In fact, IT managers at P&G and Cisco have been sharing information for about seven years to assist each other in separate efforts to implement collaboration tools from a variety of vendors, including Cisco.

The companies quickly met their initial goals of cutting travel costs and easing the corresponding wear and tear on their workers, according to managers. But they also got an unexpected bonus by gaining the ability to more easily find ideas and expertise previously hidden in cubicles located deep within office buildings around the world.

"We connect in clicks, with video anywhere and work

everywhere, so work is not a place but something you do," said Laurie Heltsley, director of global business services at Cincinnati-based P&G. "The ultimate [intellectual property] we have is [our] people."

erty) we have is four Jeople." Since P&G has 138,000 employees in 80 countries, collaboration tools have become a key business driver for the \$80 billion consumer products giant." It is an absolute necessity to be able to collaborate every day. We have a mandate to brainstorm, to listen, to innovate where competition is fierce." Heltslev said.

P&G discovered early on in the collaboration project that its research and development teams could tap expertise found throughout the corporation, she said.

The company wouldn't disclose the exact cost savings it has realized by using collaboration tools, but Heltsley estimated that P&C has saved about 34 for every \$1 invested in 70 high-end telepresence systems it started installing worldwide two years ago. The high-definition systems are used four times as often as earlier videoconferencing products were.

The company is now looking to expand its collaboration capabilities, she said. Among other things, P&cG hopes to try out Cisco's new Enterprise Collaboration Platform, which was unweiled this month and is slated to enter a beta-test period before the end of the year, she added. Craig Mathias, an analyst

at Farpoint Group, said the interest expressed by large companies like P&G in expanding their use of collaboration tools helps prove the value of the concept. "What really defines us

as humans is communication and our ability to work together in groups," said Mathias, who has followed collaboration tools since the early 1990s, when they were called groupware. "Collaboration is all about group productivity anytime and anywhere, and of course made better with mobile devices. The whole idea behind collaboration tools is practically primal."

At Cisco, CEO John Chambers uses a video blog to communicate with employees. Thousands of videos are also posted on an internal channel called "C Vision" that's used to share insights and information with workers, said Rick Hutley, vice president of the company's Internet business solutions group. He said the tools offer

He said the tools offer Cisco "a huge opportunity to leverage skills and expertise" throughout the company. "We have virtual experts because we don't have enough experts to be in enough places enough of the time." be added.

Hutley estimated Cisco's total savings from using collaboration tools during fiscal 2008 at \$691 million but added that "the (dollar) savings is minor" compared to the value of tapping into internal expertise.



The Net at 40: What's Next?

Experts say the future of the Internet is still limitless — and hard to predict.

By Sharon Gaudin

HEN THE Internet hit 40 years old — which, by many accounts, it did earlier this month — listing the epochal changes it has brought to the world was an easy task.

It delivers e-mail, instant messaging, e-commerce and entertainment applications to billions of people.

to billions or people.

Businesses stay in touch
with customers using the
Twitter and Facebook online social networks. CEOs
of major corporations blog
about their companies and
their activities. Astronauts
have even used Twitter dur-

ing space shuttle missions. On Sept. 2, 1969, a team of computer scientists created the first network connection, a link between two computers at the University of California, Los Angeles. But according to team member Leonard Kleinrock, although the Internet is turning 40, it's still far from is middle age.

"The Internet has just reached its teenage years," said Kleinrock, now a distinguished professor of computer science at UCLA. It's just beginning to flex its muscles. The fact that it's just gotten into its dark side — with spam and viruses

and fraud — means it's like an [unruly] teenager. That will pass as it matures."

The next phase of the Internet will likely bring more significant changes to daily life — though it's still unclear exactly what those may be.

"We're clearly not through the evolutionary stage," said Rob Enderle, president and principal analyst at Enderle Group. "It's going to be taking the world and the human race in a quite different direction. We just don't know what the direction is yet. It may save us. It may doom us. But It's certainly going to change us."

Mare Weber, founding curator of the Internet History Program at the Computer History Museum in Mountain View, Calif., suggested that the Internet's increasing mobility will drive its growth in the coming decades.

The mobile Internet "will show you things about where you are," he said. "Point your mobile phone at a billhoard, and you'll see more information." Consumers will increasingly use the Internet to immediately pay for goods, he added.

Sean Koehl, technology evangelist in Intel Corp.'s Intel Labs research unit, expects that the Internet will someday take on a much

more three-dimensional look. "[The Internet] really has been mostly text-based since its inception," he said. "There's been some graphics on Web pages and animation, but bringing lifelike 3-D environments onto the Web really is only beginning.

"Some of it is already happening... though the technical capabilities are a little bit basic right now," Koehl added.

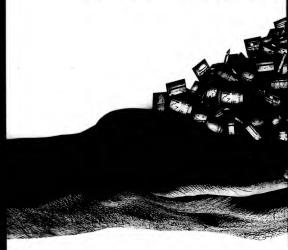
The beginnings of the Internet aroused much apprehension among the developers who gathered to watch the test of the first network which included a new stateof-the-art Honeywell DDP 516 computer about the size of a telephone booth, a Scientific Data Systems computer and a 50-foot cable connecting the two. The team on hand included engineers from LICLA, ton technology companies like GTE, Honeywell and Scientific Data Systems, and government agencies like the Defense Advanced Research Projects Agency.

"Everybody was ready to point the finger at the other guy if it didn't work." Kleinrock joked, "We were worried that the [Honeywell machine, which had just been sent across the country, might not operate properly when we threw the switch. We were confident the technology was secure. I had simulated the concept of a large data network many, many times - all the connections, hop-by-hop transmissions, breaking messages into pieces. The mathematics proved it all, and then I simulated it. It was thousands of hours of simulation." As with many complex and

historically significant inventions, there's some debate over the true date of the Internet's birth. Some say it was that September day in '69. Others peg it at Cet. 29 of the same year, when Kleinrocksent a message from UCLA to a node at the Stanford Research Institute in Palo Alto. Calif. Still others argue that the Internet was born when other key events took place.

Kleinrock, who received a 2007 National Medal of Science, said both 1969 dates are significant. "If Sept. 2 was the day the Internet took its first breath," he said, "we like to say Oct. 29 was the day the infant Internet said its first words."

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THE GRILL

David Leinweber

The professor and high-tech entrepreneur talks about who was to blame for Wall Street's meltdown and what the future holds for quantitative analysts.

14 COMPUTERWORLD SEPTEMBER 14, 2009

e: Haas Fellow in fu

ganization: University of

ocation: San Fran

To some degree, the financial whizzes known as quantitative analysts, or "auants," who developed the highly complex securities and derivatives instruments at the heart of Wall Street's downfall last year, share some of the blame in the ongoing global financial crisis. Many quants are mathematics and physics Ph.D.s from MIT and other top universities who were lured by Wall Street's riches over the past couple of decades: they utilized mathematical equations and computer programs to develop exotic trading instruments, which ultimately brought the world's financial markets to their knees.

UC Berkeley professor David Leinweber, who founded two financial technology firms, recently wrote about quants in his book Nerds on Wall Street: Math. Machines and Wired Markets (John Wiley & Sons Inc., 2009).

How was technology used and abused in the run-up to what you refer to as "The Great Moss of '08"? The stock side of Wall Street is pretty simple by comparison to more complex financial instruments. These people built a mathematical house of cards. It became obvious that they didn't know what they were doing. If another technology had Continued on page 16



NEC GIVES SOFITEL WHAT GUESTS EXPECT-RIGHT SERVICE, RIGHT TIME.

Thanks to technology and a partnership with NEC, Sofital Melbourne has some pretty happy customers. A new digital signage solution has replaced posted hotel information with a total digital installation that can provide pe and timely information to specific audiences. perfect solution for us," says general manager, Digital signage cuts costs, helps in helping Sofitel turn customers



A plane crashes and we have an investigation. Why isn't the government taking a look at [the stock slide] to figure out what went wrong?

Continued from page 14 screwed up — say, biohazards — Long Island, Connecticut and large parts of the New York metro area would probably be empty now.

The key problem is that no one knew what all of these things — i.e., collateralized mortgage and debt obligations — were worth. With stocks and such, there's a bid and an ask price. You had none of that in these exotic securities, which we now call toxic assets.

Was data from risk management systems used by Wall Street firms overlooked or

ignored by key decision-makers? Or did they not know enough about these texic assets to be able to model them effec-

assets to be able to model them effectively? It was either missing, ignored or otherwise not taken to heart. Why aren't we having an investigation of this? A plane crashes, and we have an investigation. Why isn't the government taking a look at this to figure out what went wrong? Why isn't this a higher priority.

Were quants responsible on some level for the market melddown? Absolutely. There were no position limits, you could make as much of it as you wanted. For instance, there are only so many stocks of Apple you can buy. With mortgagebacked securities, you could just keep making them.

What has the all meant for quents? For inctance, have assen of the best minds field Wall Street? To an extern. I think the stock quants — which is the world that I've been in — are just horrified. As I stated in the book, it's like coming home and discovering that your neighbors were running a meth lab that exploded and set your dog on fire.

The best minds aren't going to Wall Street, which is probably agood thing, I know a lot of people who were drawn to to from the engineering side. One MIT got; I know was working for a software freelancing firm. Then be went to work for Goldman Sackh), and he thought. The work list any harder and the challenges aren't any more complex, but the psychecks have an complex, but the psychecks have an more people make compared to the value of what they provide to society is which is a proposed to what they provide to society is crazy. But they're dose to the moner yiers.

We've seen francial markets, brobbing options and future exchanges, become highly automated in the past 10 years. Will wer neach a point where human interaction is no ineger needed to hoy and students and other inventionate institutions of students and other inventionate institutions on the contract of the contract in the contract of the contract of the contract of the contract in the contract of the contract o

ties, and that's all automated.

But there's always going to be somebody who knows something about a particular industry, and the machines aren't going to make those decisions.

What are some other trends we can expect to see with financial technology? Index funds were made from numerical information. Now there's a huge amount of tools for exploiting text, such as Google. So you're seeing a lot more interest in textual sources.

How might that he applied? There are very high-end news products, like Reuters NewsCope, which ranks the relevance of a news story to an individual company and a sentiment. You're seeing trading strategies based on aggregate the second of the second of news, and on average they're usually positive but today they're predominantly negative, people try to figure out whether to let the machine pull the trigger or have someone look at it and present the second of t

You've founded two financial technology companies. Any plans to jump back into the market? No. I don't think this is a great time to do it. Two was enough.

You were one of the first assers of Argussel. What was that life? Really dull. It came up, and it kind of worked, it didn't crash immediately, but they didn't know how much traffic it could handle, so they consider the state of the state o

I had a terminal in my apartment, and I was doing some consulting work. I had an IBM Selectric, and the modem was an acoustic coupler. I used it to impress the ladies, these (Wellesley College) girls. It impressed them for about a minute and a half and then they moved on to something else.

 Interview by Thomas Hoffman, a freelance writer in New York (tom.hoffman24@gmail.com)

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Software

The inside story of how corporate software piracy cases are investigated and prosecuted. Hint: They often start with an IT informant.

By Julia King



I was the IT coordinator and questioned . . . why I was installing the same CD on all the computers even though we bought one license. Thel response was that [my employer] was too cheap to buy all the licenses.

MYMOUS WHISTLE-BLOWER



Pirates

YOU MIGHT NOT REALIZE IT, but two out of every 10 of your co-workers might be using pirated software, according to industry statistics. You might be, too, for that matter, particularly if you work in manufacturing or at a small or midsize company with 100 to 500 PCs. You just might not know it

Your boss, an IT manager or even

the president of the company, on the other hand, may be well aware of the "cost-cutting measure," which typically involves buying a single license or just a few copies of PC software and then installing it on multiple computers for use by hundreds, sometimes thousands, of employees.

According to the Business Software Alliance (BSA), which represents

the world's largest software makers by revenue, virtually no organization - large or small, commercial or popprofit, governmental, religious or educational - is immune to software piracy. Some industries, like manufacturing, are heavier abusers, however (see chart, page 22).

According to a report issued jointly by the BSA and research firm IDC in

It probably would have been cheaper if they had just settled with us in the first place. May, global software piracy last year accounted for 41% of all installed PC software, which translates into a \$33 billion loss to software makers. In the U.S., the 2008 piracy rate was 20%, the world's lowest. Even so, the economic loss is a stratospheric \$9.1 billion.

The BSA does a lot more than merely study software piracy. The industry group provides education about copyright and software licensing rules, plus it offers sample software asset management policies and free online tools so companies can self-diagnose and ad-

dress potential piracy problems. The group also employs a small team of software piracy investigators to follow up on the thousands of condidential leads it receives each year, primarily from IT managers and other IT employees. Comparterworld was given unprecedented access to the RSA's Washington-based investigators and attorneys, who explained step-by-step how they find corporate software criteriaes and what they do note they each up



with them.

It all begins with a lead like this one, which was submitted to the BSA via its standard online fraud-reporting form (www.nopiracy.com) on July 8 and is now being investigated:

"I was the IT coordinator and questioned higher up why I was installing the same CD on all the computers even though we bought one license." wrote an informant. "The I response was that [my employer] was too cheap to buy all the licenses."

The informant went on to say that "management knew about the issue from Day One and recommended it to save cost. This was brought up several times among the IT staff and was pushed off, as it was considered no big deal."

Another critical piece of information the informant supplied is the number of computers in use at the company and the number of Pc software licenses or programs that were legally purchased. Among other irregularities, the informant alleges that a single purchased copy of Acrobat Pro software from Adobe Systems Inc. and five legally acquired copies of Microsoft Corp.'s Office Professional suite are in use on 69 user PCs.

"We ask a significant number of questions fin the online reporting forml because we're looking for as much detailed information as we can get to help us understand and get a comfort level that the person who is reporting really has the goods," explains Jennifer Blank, the BSA's senior director of legal affairs.

Once the lead passes a preliminary credibiity check, Frank Konczakowski, the BSA's program coordinator for enforcement, contacts the informant to gather additional information about specific software-related conversations, memos or meetings that might bolster the case. The BSA also contacts the software vendor for whatever licensing or

Online Piracy: Torrents and Takedowns

IN THE FIRST SIX MONTHS of this year, Paul Fernier, the BSA's manager of Internet investigations, part more than

providers. The notices sait the ISPs pull the plug on suctions, poor-topoor networks and Web sites that sell o fistribute Manul seftware.

or and other investigators menter entire section sites like ellay and software tradng elies such as liffer.com to spot activ by investiga counterful software.

SPs, not individuals, because "the ISP can affect whether or not the user has access to the internet," Fornier says. "Most ISPs have an agreement for service that users wen't undertake Hogal activity."

users won't undertable litigal entirity; But causes investing unlike authors are count for a more fraction of the BSAN is wedge, days. What's more treating the days, was Fernite, is the growth is lines activity at legislation file-healing allow counters, britans stack lingual content is "splanetom" on a logal file-sharing all "Individuals will upload as senter not program entire and their post a section of this job popular forces med line job shell july links job popular forces med links job shell july

The BSA has also gotton come filehosting altos to remove flegal "terrents or files about the near-to-near national ing software such as Different.

The BBA frequently refers cases to the U.S. Department of Justice for enforcement. The agency is especially interested in cases involving expension or the and those that are "particularly agregates," ages Andrea Sharris, deputy which of the

Section at the Justice Department.
"There have been reports of or increase
in arise symdicates broaded in intellectus
property orizon," Sharrin sops. These
proper use profits from the sale of phrate
software in fand other Shift anti-ty. "If
perceived as a low-risk, high-profit offer

sales information it may have about the suspect company.

"If our informant reports 100 copies of Norton antivirus software but then Symantec reports 100 copies licensed, we know the lead is no good," Blank says. Because so many software vendors sell through multiple distribution channels, their information isn't comprehensive. But some BSA members, especially engineering software makers like SolidWorks Corp. and Autodesk Inc., "keep copious databases with registration numbers and transfer information and a lot of detail," she adds.

In more than seven years as an investigator, the one thing that Konczakowski says consistently amazes him is "how blatant the pirates are." He has seen plenty of cases where a single legal copy of a PC software program has been installed on hundreds of machines. Even more troubling is that most informants who report corporate software piracy to the BSA say that the company knows about the piracy.

PURPOSEFUL PIRACY

"Usually, our informant will say their company is aware of the problem and has made a deliberate decision not to buy the software but to pirate the software," says Blank. "Of course, when we investigate, we hear a different story from the company itself."

But the BSA doesn't put a legal press on all of the reports of piracy it receives. Rather, for a case to go forward, all BSA members must unanimously agree to move ahead with legal action. All leads and follow-up information are stored in a central database that licensing staffers and attorneys from the BSA's member companies access via an online portal. They then review the information and decide whether to take further action.

The cases that get escalated are those that involve "a reasonable number of computers and software" and have a "good lead," Blank says, although she declines to specify what the BSA considers a "reasonable number."

"It's not a set number of computers, but we're looking ultimately to reach a settlement with the company, so we have to look at whether it's worthwhile investing in legal fees," she explains, "If it's 20 copies of a \$20 software program, that's not a great lead for me. But 10,000 computers and only three [legal] copies is a lot better lead. It's going to involve a larger case. So we're looking for a reasonable number of computers and a variety of software."

One other important note is that the BSA pursues only those cases involving software

Blowing the Whistle

People who call our hot line are outraged by the

situation. JENNIFER BLANK. SENIOR DIRECTOR OF LEGAL AFFAIRS, BSA



of its member companies. The group doesn't have the power of attorney to pursue cases on behalf of nonmembers.

If the case gets a green light, an attorney representing the BSA first sends the CEO of the target company written notice of the allegations and all of the details. The informant's identity remains confidential throughout the process. The organization also asks the company to perform its own investigation and an audit of all software published by BSA

member companies. Ultimately, the goal is to get the company to own up to the possession of whatever software it may be using illegally, agree to a financial settlement

based on the retail price of the unlicensed software, and promise to comply with all licensing and copyright laws going forward all without litigation.

"Our goal is to work with companies collaboratively, not go to court," Blank explains, "There's a good reason. From a bang-for-thebuck perspective, I can sue two companies for the same amount of money I can do 20 audits. [Through audits] I can reach more companies

Wall of Shame The 10 industries most often reported for soft-

- ware piracy:
- 1, Manufacturing 2. Sales/Distribution
- 3. Service 4. Financial services 5. Software development
 - 6. IT consulting 7. Medical 8. Engineering
 - 9. Education

10. Consulting

and achieve more compliance. It's also cheaper for BSA and for the company defending itself." Last year, the BSA received more than 2 500 informant

leads, requested 920 audits, pursued one case in court and collected \$9.5 million from settlements.

But the organization can and will take noncompliant companies to court. In June 2008, the BSA filed a copyright infringement lawsuit against Taney Engineering Inc. and Taney Cunningham Equipment LLC of Henderson, Nev.,

after the civil engineering company presented the BSA with an audit report whose findings varied significantly from the information provided by a confidential informant.

Unable to resolve the dispute during the audit process, the BSA filed a lawsuit and court proceedings began. Ultimately, however, Taney did reach a settlement with the group. which collected \$205,000 in damages from the

"It probably would have been cheaper if they had just settled with us in the first place," says Blank.

Piracy's Global Economic Impact Debated

THERE'S NO OUESTION that software piracy is a global problem with a heavy financial impact. But just how heavy it is is a matter of debat

A May report by the BSA and IDC estimated that 20% of software programs installed in the U.S. last year were unauthorized copies. Worldwide, the figure is 41%, with an estimated financial impact of \$53 billion - a figure based on the retail value of the pirated PC software.

But critics of the study say it fails to account for the possibility that pirated software could be replaced with Linux or other open-source options. If it were, the BSA's global loss figure of \$53 billion would drop sharply, they maintain.

"Obviously, not every piece of pirated software will be replaced immediately with legitimate software if underlice is addressed or sources of pirated stuff

dry up," acknowledges Dale Curtis, the **BSA's vice president of communications** But he says that over the years, IDC has found "a very strong correlation between piracy rates and software sales. In country after country, as the piracy rate falls. legitimate sales go up.

A second criticism of the report is that its country-by-country figures are partly based on the results of an annual survey that in 2009 covered 24 countries. One country that wasn't included is Canada - and that doesn't sit right with Michael Geist, a professor at the University of Ottawa.

"What the BSA did not disclose is that the 2009 report on Canada (whose pi racy rate declined from 33% to 32% in the study) were guesses since Canadian firms and users were not surveyed. While the study makes seemingly authoritative claims about the state of Canadian

piracy, the reality is that IDC . . . did not bother to survey in Canada," Geist wrote in a May 27 blog post. Curtis responds that the study "is not a

guess, nor is it a scientific measurement, nor is it based primarily on a survey of software users, as Geist suggests." A survey of 6,200 users is only a piece of the model, Curtis says. Further, he says Canadian users were surveyed the previous year, and "there is no reason to assume large chances in results from one year to the next."

Ivan Png, a professor of information systems and economics at the University of Singapore, says the BSA and IDC should explain how they applied the results from the 24 countries surveyed to all of the other countries not surveyed. "IDC should make the methodology transparent," Png says.

- JULIA KING



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Piracy's Global Economic Impact Debated

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■ BUSINESS INTELLIGENCE

Cognos system, like Event Studio," a Web-based events-management module. Mulholland says.

The economy has companies scrambling to use BI to find operational savings and to refocus their product lines and strategies, says Nick Millman, senior director for information manage ment services at Accenture Ltd.

But IT organizations aren't rushing to buy new business intelligence software or build new data warehouses. Instead, they're digging deeper and doing more with existing tools from BI vendors such as IBM's Cognos unit, SAS Institute Inc., SAP AG's Business Objects unit and Microsoft Corp. "Organizations are trying to utilize their existing business intelligence tools without going out and buying more hardware and software," Millman says.

Millman and others suggest the following strategies to squeeze more out of your existing tools while giving your business an extra boost.

CONSOLIDATE YOUR TOOLS "Usually people have more tools than they need, and that can be distracting," says Anthony Abbattista. vice president of technology solutions at Allstate Insurance Co. in Northbrook, Ill., and a former business intelligence consultant. Those organizations end up with "different pockets of people doing similar analysis with different tools," he says.

His recommendation: Consolidate. and be aggressive about it, "Get to the minimum number of tools you need to get the job done."

Over the past few years, Abbattista has overseen the consolidation of 13 data warehouses down to just two and has pushed Allstate from a centralized business intelligence function to a selfservice model based on the deployment of customizable dashboards

Settling on a standardized set of tools was the first step toward empowering business managers and analysts. Abbattista says the company "killed off" two-thirds of the tools it was using, including redundant products and "falling stars" - yesterday's hot tools that are no longer considered leading-edge.



Usually people have more tools than they need, and that can be distracting. ANTHONY ABBATTISTA, VICE PRESIDENT OF TECHNOLOGY SOLUTIONS. ALLSTATE INSURANCE CO.

Those efforts paid off before a single new report was created. The business saved on software support and licensing costs, and the simplified tools portfolio made user training easier. Standardizing on a single set of tools

also made it easier for different groups to share and reuse models. Before, for example, the sales and finance groups had separate profitability models that they had created using different tools. "If they got different results, you'd spend time trying to rationalize why that was," Abbattista says. Now differ ent units can feel confident that they're

comparing apples to apples.

_____ LET BUSINESS TAKE THE DRIVER'S SEAT It's more important than ever for companies to make sure that BI technology is being applied to solve the right

business problems. IT organizations still fall into the trap of putting their technology out front rather than creating models that respond to changing business needs, says Millman. The key is to work with the business before developing new information

models, "Start with a clear vision of Continued on page 26



Congratulations to Our Finalists!

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 New York City Department of Information Technology and
- Telecommunications (DoITT), New York, New York

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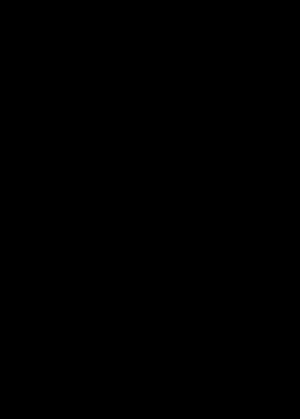
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- Telecommunications (DoITT), New York, New York United States Postal Service. Washington. DC
- · University of Illinois, Champaign, Illinois

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- Paul Valle, Page Gine's, Inc. - Ban Vesset, IDC
- Judging Criteria

ate and rank the finalists or each

■ BUSINESS INTELLIGENCE

Continued from page 24 how information will generate value for the organization," Millman says. "Think about what business interventions you hope to derive from BI tools. Understand where the business benefit is going to come from, then configure the tools and processes."

At Allstate, two areas of focus are managing loss expense ratios and measuring the effectiveness of the call center. "We've taken experts in the tools and methods and put them together with the business people to find these high-value targets." says Abbattista.

The temptation in larger organizations is to try to do too many things with BI, he observes. Having fewer tools helps with that problem, but management also needs to prioritize what is most important.

"These times have been good because they've brought focus on measuring fewer things well," says Abbatrisa. At the highest level of the business, Alfstarés management is watching 10 or 12 different metrics, he says. While business intelligence tools used by the business intelligence tools used by the business intelligence tool used by the business intelligence tools used by the business intelligence tools used by the business intelligence tools used by the business intelligence tools used by the business include a different specific them."

USE NEW DATA
MODELS FOR
NEW MARKETS
High now, says Gartner
Inc. analyst Bill Hostorganization might-value prodwor offerings in high-value prodwor offerings in beautiful to the compete in
the low-cost market must figure out a
way to move up the value chain — and
hey're using BI tools to get there.

Which is what Creativity did. To combat the commoditization trend in its core markets, it used the Cognos 8 BI suite to identify and develop high-value products that couldn't be easily commoditized by its low-cost competitors.

It started by purchasing transactional data from retailers in the toy, fashion and apparel markets, adding that data to its existing data warehouse, and analyzing buying trends. Creativity also uses Belmont, Mass-based Smart Software Inc.'s SmartForecast forecasting software. All that analysis has led to more "design-oriented, fashion-oriented" products, such as a line of paper dolls based on the television show *Project Runway*.

The strategy appears to be working. Creativity's fashion-based offerings and its other unique designs have become the dominant portion of its business, accounting for more than 50% of its sales and representing an even greater percentage of its margins, Mulbolland reports.

BUSINESS
To help identify the right areas to focus on, Multiolland started an excellence, a group that flockles representatives of different parts of Creativity, from sales to open that flockles representatives of different parts of Creativity, from sales to open that flockles representations. Twoir trying to elevate the IQ of everybody in your company in terms of knowing the key bestiness metrics and measuring them areas of the business. The sarve areas of the single-size. The sarve areas of the business. The sarve areas of the business.

CENTRALIZE

Moving toward that goal, Creativity developed common tool sets and profitability models for its sales and finance groups. Reports are pushed to the desktops and viewed in dashboard applications. From there, Mulholland says, users "can go in and do further analysis."

IBM has been promoting such centers among its Cognos customers as a way to create a standardized set of models using existing business intelligence tools. A set of Bl dashboards developed for one department, for example, can be extended to other units. That way, new groups don't have to reinvent the wheel and can get up and running more quickly.

PUT MORE DATA IN YOUR WAREHOUSE.
The current economic downturn is a great time for organizations to review what they're tracking and to add more they're tracking and to add most to find additional savings, just be very selective about what you add, experts advise.

Anne Milley, director of technology product marketing at SAS Institute, suggests adding data from call centers, Web logs or other sources. The question companies have to ask in these times, she says, is, "What do I have that I can get into the data warehouse at a relatively low cost?"

As sales slowed at Creativity during the downturn, Mulholland and the center for excellence team changed their focus from keeping up with growth to cutting costs. One project involved providing a feedback loop linking the back-end ERP system and the CubiScan system that's used for shipping.

Cubiscan is a laser-based scanning and weight-measurement system flow quantronis Inc. that's designed to custure that goods are properly packaged to meet customer specifications to be "considerable", Multholland says.) While the ERP system issued packing in instructions with the orders, the stand-alone CubiScan system wasn't returning data on whether shipments were actually packaged properly—and many were not. "There was no feedback loop." Multholland says.

The IT team used the Cognos ETL (extract, transform and load) tool to bring the CubiScan data into its data warehouse and then built exception reports for shipments where specifications for package dimensions hadn't been met. Mulholland expects the project to pay for itself in three to five months.

MAKE BETTER USE OF DATA YOU ALREADY HAVE In some cases, doing "more with less" may simply be a matter of taking data that users already have and presenting it to them in a more useful way. At the Wisconsin Department of Revenue's Business

in a more useful way. At the Wisconsin Department of Revenue's Business Intelligence Services Bureau, Director Janna Baganz says her organization found a way to present a multiyear view of tax data on a single screen. "That proved to be a timesaver," she says. Her group also worked to combine

data from the state's income processing and audit systems, relieving analysts of the need to do exception report analyses. Now, when certain business rules kick out a tax return from the processing system, the staff no longer

Organizations are trying to utilize their existing business intelligence tools without going out and buying more hardware and software.

NICK MILLMAN, SENIOR DIRECTOR FOR INFORMATION MANAGEMENT SERVICES, ACCENTURE LTD.

spends 20 minutes running a manual report on another system and then reviewing it to resolve the issue.

Instead, the integrated systems automatically resolve the problem between themselves and process the claim in shout two minutes - without staff involvement. Since July 2008, the department has saved approximately 1,750 hours of staff time and taxpayers get their refunds faster, says Pat Lashore, administrator of the department's technology services division.

In a similar vein, Allstate has had success pushing report-creation and -customization capabilities out to end users through the deployment of dashboards. Previously, the company had a centralized report-writing function within IT, and "it took a lot longer to get answers into the hands of business people," Abbattista says. Now his team creates dashboards, walks users through the basics of using the tool and lets them do the rest.

Back in the IT department, the selfservice BI tools helped Abbattista's team get out of the report-building business and clear out a long backlog of report requests. Through the self-service initiative and data warehouse consolidation, he has reduced head count by two-thirds while expanding access to self-service BI tools to 25,000 users.

DATA, NOT JUST THE TOOLS Scaling up the number of users who have access to RI tools won't help unless people know how to use those tools. But that's not the biggest issue when it comes to educating users. "The trend has been for the front end to get simpler and more

HELP USERS

HINDERSTAND THE

intuitive." Millman says. And certainly dashboards have helped in that regard.

"What's often missing is the explanation of where the data comes from and how you can use it to derive some insight." Millman says.

For example, the data generated by Creativity's CubiScan system was foreign to business people in the back office. "We have to explain what the data points are and what the data points mean," Mulholland says.

Allstate focuses on building that knowledge one user at a time. "We build out initial capabilities with front-line managers and people in the trenches," Abbattista says. "They then become the consultants to people around them.

"It's really [about] teaching people to mine for value," Abbattista explains. In that respect, he says, "I don't think we'll ever be done with our BI efforts."

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Technologies such as WiMax, smart grids and social networks will transform tomorrow's urban centers. By John Brandon

City 2.0

CIENCE FICTION
writers paint
grand pictures
of glorious cities of the future.
But saide from some of the
more whimsical elements of
those visions — flying cars,
say, or downtown atriums
protected by invisible walls
— City 2.0 isn't as far off as
wu might think

you might think. Ubiquitous wireless networks are already available in Baltimore, Minneapolis and other cities; corporations such as Thomson Reuters PLC have sustainable data centers that sell power back to local utilities; the smart energy grid is well on its way, and city-provided social networks are becoming more common. Indeed, the next steps toward the city of

tomorrow are all about integrating those services cohesively, making them widely available across the entire metropolis and managing the services more efficiently.

the services more efficiently.
"The reality is that the
city of the future will likely
have many aspects of a contained and managed ecosystem," says Rob Enderle,
president and principal analyst at Enderle Group.
While some visions of
tomorrow's municipalities
are quite grandiose, several
recent technology advancements are already paving
the way to City 2.0.

THE SMART GRID

The smart use of energy is one of the most important goals for urban centers. The Continued on page 30

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IT IN GOVERNMENT

Continued from page 28 smart grid concept centers on the idea of using electricity when it's available cheaply, rather than at peak times when it's more expensive, and it calls for wind and solar and other renewable sources to be integrated into the energy grid. This requires two-way communication between utility companies and the businesses and individuals who use their power. We're nowhere near a comprehensive smart grid yet, but some cities and energy companies are tak-

ing steps in that direction.
Today, a few cities, such
as Boulder, Colo., and Houston, have pilot programs in
which customers can visit
a Web site to see their realtime energy usage.

A good example of smart grid technology in action is at the lown State Capitol complex in Des Moines. Chi is discussed in Des Moines. Chi is a smart grid that feeds to a central kine it hat shows the power usage for each building in the complex. To create the smart grid, the buildings were wired with sensors that connect a fiber backbone, feed through a central server and then report usage data in real time to the kinek.

"Today, departments have no incentive to save power," says state CIO John Gillispie. "We are working toward billing the individual departments for how much they use."

Gillispie is planning on adding sensors for monitoring power by floor, and he envisions a day when sensors are deployed across the state — even on roadways and in cars, office buildings, schools and homes.

CITY-CENTRIC SOCIAL NETWORKING We're all familiar with using social networks to



This Thomson Reuters data center, which has rows of batteries and generators for backup power, has close ties to the local electric utility.



A citywide wireless network could have wide-ranging implication for how residents connect with elected officials and one another.

catch up with friends and family or even to find a job, but wouldn't it be nice if your city had a social network where you could keep abreast of local developments and weigh in on neighborhood issues?

The city of Dublin, Ohio, uses Novell Inc.'s Teaming software to run a portal where government officials can publish blogs, chat via instant messaging and share documents. In the next few months, the city plans to make the private network available to all citizens. In the future, a social network like that could allow residents to submit ideas for city improvements, chat with politicians and blog about their neighborhoods over a secure, city-centric portal,

San Jose, Calif., is already one of the most high-tech cities in the U.S. Over the next few years, it will create a social network on Wikiplanning.org — an online site for civic engagement that will help citizens learn about the city, chat using in-

about the city, chat using instant messaging tools, complete surveys and download city podcasts.

"Frequently, only small groups of residents come to public meetings, and in the case of a multiple-meeting project, it's largely the same group of citizens who continue to participate," says Kim Walesh, San Jose's chief strategist. "Participation by small groups may not offer a good representation of the community as a whole. An advantase of Wikiplannine."

is that activities can be done day or night at the user's convenience, allowing for far greater participation."

DIA XAMIW

CITYWIDE WIRELESS
The concept of readily available wireless service has been around the block a few times, so to speak. Cities such as Philadelphia and Chicago have tried to provide Wi-Fi access, without much success. Minneapolis is one of the few large cities that has deploved Wi-Fi successfully successfully.

In Portland, Ore., a Wi-Fi network didn't fare so well. but a WiMax project seems to be off to a stronger start. WiMax, widely seen as the next generation of mobile data access after Wi-Fi. stalled over the past few years because of the complexity of the technology. changes in partnerships and reluctance on the part of city officials to adopt an emerging technology. Even so, WiMax promises more ubiquitous access than Wi-Fi. because Wi-Fi hot spots require users to seek them out whereas WiMax is available throughout a given area. WiMax requires fewer base stations and has a lower infrastructure cost, and it uses licensed spectrum that does not interfere with

other wireless LANs.
Tim Sweeney, a product
manager at Intel Corp., says
the prospects of WiMax in
cities are strong because it
can provide greater bandwidth for city services.

"Wi-Fi was never intended to support a wide area; it is really for inside buildings," Sweeney says. His vision of future municipal WiMax deployments includes care using the technology to report their fuel tank levels, gas stations bidding on the cost of fuel, and

The Cloud Ties It Together



computing could play a loy role in managing city corvicon. There might be a control command conter for mosttoring and adjusting power manage and for providing IT

services vin William, but the actual IT operation could be the cloud" rather than housed in the city's data conter. Yenture Group Research Inc. any this is part of the "anychara connectivity revolution," which is partly about making ministry in a city intrastructure more Seable, efficient and makints, in this model, anything can be an endpoint, includmatical and any office profilers and were house.

ing PDAs, ears, office indiffuse and year home.

Jeffiny Brees, chief technology officer at Yardum Group,
augus that the IP-based, packet-writched cloud model in the
enterprise can also be applied in a city's infrastructure—that
is, as a west, interconnected enert grid and nocial network

zone would be a click every from oily services.

"One way or another, we will get to the point in cities where anyone who wants high-speed access will get it - and the city will be a server when the details of here." ones from.

"Says Broom.



electric cars communicating with smart grids about their energy use - perhaps to determine whether alternative routes would save power.

SUSTAINABLE DATA CENTERS

Sustainability is a key part of the city of the future. The idea is that a highly efficient, well-monitored green data center could allow a city to realize major energy savings. The vision also calls for such data centers to be used for most city services, not just computing. For example, a single city data center could support government services and monitor automobile traffic. Today. those functions are difficult to consolidate.

Enderle says most city services aren't connected to one another today, but some individual components, such as applications that monitor electricity usage in government buildings, have sensors that could be used to create more integrated systems. At some point in the next 10 years, cities will decide that patching an aging infrastructure no longer makes sense and will instead start using more modern technology, Enderle says. In a sustainable data center model, city services could be part of a vast "network of networks" that

water wireless and data usage for all citizens Thomson Reuters offers a model for such a sustainable system. The news and information-gathering service operates multiple data centers that occupy a total 100,000 square feet of space for its Westlaw online legal research service in Eagan,

Minn. Rick King, the com-

monitors real-time power.

pany's global head of technology and operations, has designed those data centers so that they have close ties to the local utility, the Dakota Flectric Association.

Thomson Reuters has shout 900 batteries in one data center and four diesel generators in another, which it uses as a backup for power delivered by the local utility. It also has two massive diesel fuel tanks. Today, the company uses the batteries for short bursts (about 15 minutes) of backup power and can use its generators for

a day or two as needed, al-

lowing the local utility to sell the unused power. Enterprise IT offers other examples of how future cities could operate. Thomson Reuters monitors 15,000 FT assets such as servers and storage arrays, in real time, and the power usage is con-

trolled automatically - when the diesel generators are needed, they start up. Extending this model to a city could mean that power companies are highly connected and that a smart grid would allow homeowners to monitor their own use at the individual ap-

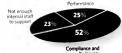
pliance level, enabling them

to adjust usage patterns. A highly connected city with smart grids, widely available wireless access and a sustainable data center is well within reach. Over the next 20 years, cities in the U.S. and abroad will likely take steps toward that goal, building the infrastructure with a view toward better connectivity and better living. Brandon, a regular contribu-

tor to Computerworld.com. worked as an IT manager for 10 years and has been a tech journalist for another 10.

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It Takes a Crisis to Change a Policy

After 25 laptops were stolen in broad daylight, our manager might have a better shot at implementing some needed changes.

into our offices through

HIS IS a story about bow budget cuts take a toll on security, but it's also a tale about bow security setbacks can be opportunities to introduce muchneeded measures.

When the recession led my company to cut costs about a year ago, one of the decisions was to close a major facility housing some 1,200 employees. A lease agreement meant we couldn't start moving those employees into our headquarters building until last week, when 200 made the move.

When the moving truck arrived here, the movers propped open one of the building's side doors. That was a mistake, made worse by the fact that the budget for guards at headquarters was also cut last year. No guard was available to watch the truck or that open door, and the movers, of course, were too busy moving things to provide security.

That big moving truck outside of an office building must have looked like an invitation, because someone took advantage of the situation and sneaked

that side door. That person then proceeded to steal unsecured laptops from open offices and cubicles. He got 25 of them, apparently making several trips in and out through that door. He might have gotten more, but on one of his trips out of the building - when be was carrying five laptops - an employee challenged him. He ran to bis car and took off. Another employee chased the thief but was only able to obtain a partial license plate number. But we know the make of the car and have some video footage from our security cameras, so we're hopeful that we'll be able to recover our goods. In the mean-

time, data and intellectual property are at risk. As I said, though, unfortunate events are sometimes the needed impetus for making changes. My

When bad things happen. I usually have about a one to-two-week win dow of opportunity. experience has been that when had things happen. I have about a one-to-twoweek window of opportunity. I seized the moment.

GRABBING THE CHANCE First on deck is full disk encryption. We tried to implement it about two years ago, buying the product put out by PointSec (recently acquired by Check Point Software). But some simple things impeded widespread adop tion. For example, a lot of our employees use laptops inserted into docking stations, and they couldn't use their USB mice and keyboards until after they logged in. There were also problems with hibernation that I understand have

sions of the product. These aren't problems that justify failing to use encryption, and my new, post-theft goal is to have our general counsel support a policy making it mandatory for some employees - i.e., those in legal, HR, finance and the executive offices

been fixed in newer ver-

I'm also going to push a group policy requiring

Trouble **Ticket**

ACTION PLAN: To stage of this one

that a password lock kick in after a set period of inactivity. Many of the stolen laptops were logged in. giving the thief full access to the information on them. The cost of the laptops is negligible compared to the potential losses to the company and to the individuals whose identities could be stolen through the personal information they kept on their machines. The reason we don't already have such a policy is that it would affect some of our engineering tools. But I think the laptop theft adequately demonstrates that the risk from not locking machines is greater than the benefit to engineering.

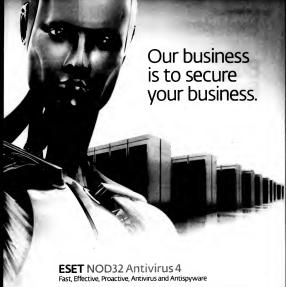
Finally, I will take steps to raise awareness about personal security, laptop locks and the need to be aware of those around us.

I wish it didn't take a near catastrophe to drive change. But since that's

O JOHN IN the case, I can always bone that next week

a vendor will plug his laptop into one of our shared office environments and I'll finally be able to start my network access control project. This week's journal is written by a real security manager, "Mathias Thurman."

whose name and employer have been disguised for obvious reasons Contact him at mathias_thurman@ vahoo.com.



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Building Support For Tough Decisions

VER THE past couple of years, IT managers have been forced to make a lot of tough decisions. Budget cuts, layoffs and project cancellations became commonplace occurrences. But just because we

may be seeing the beginning of an economic recovery, that doesn't mean we're at the end of the hard choices.

In my experience, 1T investment doesn't recover until a year or more after business starts to improve. Budget cycles and managerial caution intervene to slow improvements in the

IT workplace. What will return to your IT shop more quickly than your budget and head count is the sense among the staff that decisionmaking can go back to normal. During emergency situations like the economic meltdown, decisions have to be made hurriedly, without a lot of consultation. Now, with things looking better, managers should have more time to contemplate their choices and

build support for decisions. Perhaps, though, you've gotten a little too used to being able to make choices and impose your will in a dictatorial, emergencydriven style. It might have felt a little heady in the midst of crisis to have your people look to you for decisive plans and instruction. You shouldn't get too comfortable with that feeling. The support from the staff that managers have enjoyed recently can, and probably will, evaporate just as

quickly as it materialized. So, before you face a full-scale rebellion, this may be a good time to start thinking more carefully about building support for decisions that just a few months ago you were able to promulgate by flat. The most important thing to remember about the support your staff gives you

III Perhaps in the economic crisis you've gotten a little too used to being able to make choices and impose your will in a dictatorial style. is that it arises more from emotion than from reason. Even if you can present a tightly reasoned argument about why your decision is good and why the staff should follow you, that may not be what you need in order to sway them. You will have to pay attention to

your staff's feelings about several things.

Self-interest, Clearly. people are most interested in how a decision affects them personally. If they feel that a decision will be good for the group but bad for them, they may resist. And resistance brought on by self-interest could be compounded if people feel that during the economic crisis they have had to accept things not in their shortterm interest. If they suffered pay cuts, were forced to work more hours or got stuck doing distasteful work because the staff was thinner, they may be looking for payback now that



things are getting better. Group benefit. Though self-interest trumps this, people also care about the effect a decision will have on the group. Not many are willing to subordinate their own self-interest to the good of the overall group. But most people most of the time are going to want to see both a group and an individual payoff.

Fair process. In most cases, it is easier to build support for a decision as it is being made than it is after the fact. When it comes to especially difficult decisions, everyone knows that there will be winners and losers - that's why the decision is difficult. But those who are among the losers will have a much easier time accepting the decision if they feel that their case was heard and everyone's perspective was represented during the deliberation. If they lose fair and square, they are more likely to sup-

they don't like it. So remember that your days of just felling people what to do are numbered and that you need to build support if you want your orders to be transformed into action. And getting support during good times is much harder than it is in times of crisis. ■

port the outcome, even if

Paul Glon is a consultant who helps technical organizations improve productivity through leadership, and the author of the award-winning book Leading Geeks (Jossey-Bass, 2003). You can contact him at info@paulglen.com.

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Bob Iennings



thinks this recession could be a good thing for the millennial generation.

there's no more powerful force to were promised are now few and catalyze lasting positive change. far between, and because of their lack of experience, they're among But it must take more than the first to be laid off and the last to be hired. Further, because they've

adversity to make one prosvme a successful entre-

per. Not everyone who lived through the Great Depression preneur. True. The key lies in how one chooses to react to adversity. The point of our book is not that adversity automatically creates success, but that the experience of overcoming adversity teaches you skills you wouldn't otherwise learn and brings out strengths you wouldn't otherwise know you had. Adversity may not be a welcome teacher, but it's an extremely effective one. Failures and setbacks have

a way of bringing out the best in us that successes, sad to say, do not. Some people crumble in the face of adversity, but there are plenty who meet it head-on and make a point of learning from every obstacle and setback they encounter. Our focus is on that latter group. Why is it that some people can come back from poverty, bankruptcy, serious health challenges, limited access to education or any other adversity and thrive, while others give up at the first sign of trouble? Part of the answer lies in attitude. The power of positive thinking is not a new concept, but it's key to productively dealing with adversity, instead of giving up or focusing on everything that went wrong, optimists take stock of the situation, quickly identify where they went awry, and determine how they can move forward in a positive way.

How often have you

had the opportunity

to telecommute?

19%

No reply:

3°0

How does one so about turn

Would you be willing to give

up 50 of your pay for the op-

portunity to work remotely?

21%

Neutral:

ing a career sethack like a roff into an advantage? First of all - and here's the power of positive thinking at work - think of a layoff as an opportunity, not a setback. is a layoff a serious challenge? Of course. But you won't get anywhere by focusing on the negatives or feeling sorry for yourself. Look at a layoff as a unique opportunity to open a new door. Maybe this is the time to take your career in a brand-new direction. Recessions have spawned many an entrepreneur, and some of the world's biggest companies were launched in the midst of economic downturns. What better way to turn lemons into lemonade than to launch the next Microsoft FedEx or Disney? - JAMIE ECKLE

To read the full interview. go to computerworld.com/more.

How do you put a positive spin tened" by the forces of globalization. on this devastating economic With this kind of capability already disruption? We don't underestiin place, think of the potential for mate the gravity of the situation for growth if this generation befriends millennials. After coming of age in adversity and uses it as a springprosperous times, the economic board to greater success. Undergodownturn really pulled the rug out ing adversity is never pleasant, but from under them. The jobs they

COMPILED BY JAMIE ECKLE



largely been untested by adversity, many lack the skills necessary to

Still we do think the recession

overcoming adversity has a way of

bringing out extraordinary qualities

and abilities in people that would've

educated and very creative. They're

technologically proficient and per-

fectly at ease living in a world "flat-

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Welcome Back

While this pilot fish is on vacation, new card-reader or locks are installed at npany, Fish's first task when she returns: Configure the locks. "The vice president hands over a handwritten paper with the info on employee or access and times," says fish. "The VP promptly takes a week's vacation. The day the system goes live, the employees are standing in front of me yelling because their cards won't let them in the door they want to use. They now have to use the main door instead. The VP comes along hearing all the complaints, then starts yelling at me that this is not the way it should be set up. I promptly pull out his

handwritten instructions. He looks at it and says, 'That's not my handwritingi" "

Always Glad to Help Pilot fish gets tapped to install a secure version of FTP on a very busy FTP server. "The new install will require som downtime for a reboot and during configuration," says fish. "In the process of work ing with various groups to schedule the downtime, one ticular team leader is a bit offexible. He insists that his stems use the FTP server all day and all night; the only possible window for this installation is between 1 a.m.

and 3:45 a.m. Another stake-

work on a weekend, to which

holder suggests doing the

everyone quickly agrees except the team leader, who still insists that the stated window is the only time that the install can be done. So I try another tack, sending this e-mail: If the early morning is our only window, and jobs cannot be paused or held, then we'll do what we have to do. However, if I install this and set it up during this quiet time it will have to be tested before the jobs begin again at 3:45 a.m. Someone on your team will have to do that. To which the team leader responds: 1 have found another FTP quiet period: every Sunday from B p.m. to 11:59 p.m. Hope this helps out!"

Irretrievable, Really User comes to this support pilot fish complaining that his PC is "acting strangely." "It turns out he had gotten his computer so jammed up with spyware and Trojans that it was basically nonfunctional," fish grumbles. "We had to

rebuild the computer from scratch. We were able to recover much of his work and files, but some were irretrievably damaged - or just plain gone, Afterward, I gave him an explanation of what had happened and explained that we had recovered as much as we could but that some stuff was simply gone. There would be no way to get anything more. Two days later, he called to ask when I was going to bring him the rest of his missing files."

■ Sharky doesn't want to miss your true tale of IT life. Send it to me at sharkv@ computerworld.com. You'll get a stylish Shark shirt if I use it.

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I've Looked at Code From Both Sides Now

OR A LONG TIME NOW, I've been one of those power users who are either fun to work with (no need to explain painfully obvious basics to me) or a developer's nightmare (two words: scope creep). Lately, though, I've been dwelling on the other side, actually developing a database project to be used by several dozen of my colleagues.

While I've coded internal tools before, those have typically been along the lines of: "Here's what I came up with. Like it?" This one is an official project, complete with requirements and meetings and, yes, change requests. And there's nothing like living someone else's job for a while to truly understand that a request for just one more "little tweak" doesn't seem so minor to a bleary-eyed coder who's just finished a 4 to 8 a.m. coding session.

If you're nodding your head in agreement here, though, I feel compelled to point out that it may have been quite a while since you were on the other side, the side that most users (including me) usually inhabit: having great need for improved technology to boost efficiency but little

ability to make it happen. That feeling of powerlessness is something I've got to keep in mind now when users come up with some great new feature for my little project. Sharon the editor would be agreeing with an idea for expanded functionality, and very possibly chiming in with an addition of her own. We users have a lot of work that needs to get done, and the ability to perform tasks in an easier. more elegant or less taxing manner is extremely appealing. And since we can rarely code systems on our own, we often feel at the mercy of outside forces

when we're told, "No, you can't have that." Sharon the developer still says "Sure, no problem" to some ideas. But

Sometimes
 Sharon the coder
just wants to tell
 Sharon the user
to go away.

other times, after realizing the amount of work involved, it's tough to keep from blurting out. "Are you kidding? No!" What Sharon the coder needs to remember is that Sharon the user's requests aren't aimed at generating yet more hours of work for the development team. Often, I come up with new ideas for proiect features because I've bought into the usefulness of the original idea. And usually I have no way of knowing whether a suggestion represents a relatively easy add-on or a nightmarish week of more work.

From my temporary perch astride two worlds, I've rediscovered the importance of communication. Users making requests often don't differentiate between "This would be nice" and "That would save us hundreds of hours over the course of a year." On the other side, tech teams usually have

good reasons for saying yes to some requests and no to others. But if developers only say things like "You should have thought of that earlier" or "We're too busy" — and if they don't occasionally say yes or offer reasons for saying no — users will just get frustrated. Users get cranky when we feel we have no control over the outcome.

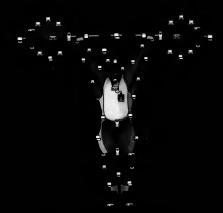
over the outcome.
Developers do too, of course, which is why it's so important not only to communicate in some way, but to make sure messages are understood and not simply received. Some advice that writers learn in journalism class is equally useful for project teams: Show, don't tell. Or as Matt Wait, key developer for the Pulitzer Prize-winning political database Politifact, says:

Demos, not memos This Journalism 101 idea is something I've needed to relearn during my brief coding stint. Not everyone can grasp the advantage of putting information in a database instead of e-mail or a free-form text document. Actually demonstrating the slicing-and-dicing capabilities of a database can get more people enthusiastic about its potential. And that's a good thing even if it means a slew of additional requests for

new features.

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